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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,559	02/22/2002	Hamid R. Mehrvar	13528-174US	6934
7590	06/06/2006		EXAMINER HALIYUR, VENKATESH N	
Ogilvy Renault Suite 1600 1981 McGill College Avenue Montreal, QC H3A 2Y3 CANADA			ART UNIT	PAPER NUMBER
			2616	
DATE MAILED: 06/06/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/079,559	Applicant(s) MEHRVAR ET AL.	
	Examiner Venkatesh Haliyur	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-28 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed on 03/28/2006 has been considered but is ineffective to overcome Aukia et al reference. See the rejections below.
2. Claims 1 – 28 are pending in the application.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Aukia et al. [US Pat: 6,594,268].

Regarding claims 1,18, Aukia et al. disclosed in their invention of "Adaptive routing System and Method for QoS Packet Network", a method for conveying (routing) both high and low latency (delay/QoS) traffic streams across a switching fabric with at least two diverse paths (multi-path) mapped through the switch fabric [item 206 of Fig 2, column 8, lines 62-67, column 9,lines 60-66,column 10,lines 3-23] from a common input interface [input link interface that supports one or more links, item 204 of Fig 2] to a common output interface [output link interface that supports one or more line cards, item

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207 of Fig 2], each path being optimized to satisfy respective different latency requirements and a latency classifier [item 506 of Fig 5] adapted to route each traffic stream to a selected path optimized to satisfy latency requirements most closely matching a respective latency requirement of the traffic stream [Figs 2 & 5, column 5, lines 59-67, column 6, lines 1-66, column 9, lines 60-66, column 10, lines 3-23, column 13, lines 32-67, column 14, lines 1-44].

Regarding claims 2,9,19, 20, Aukia et al. disclosed that traffic streams for each path are processed independently (concurrently) and buffered (item 205 of Fig 2) with in a respective input queue of the path [Fig 2, column 10, lines 3-23].

Regarding claims 3,4, Aukia et al. disclosed that each path is mapped through respective different physical infrastructure (routers) of the switch fabric [item 206 of Fig 2, column 9, lines 1-5] and two or more paths are mapped through a common physical infrastructure capable of supporting the path optimized to satisfy the most demanding latency requirements (QoS) [column 4, lines 62-67, column 5, lines 1-8].

Regarding claim 5,6,21,22, Aukia et al. disclosed the step of selectively coupling each one of a plurality of upstream channels to a selected one of the paths, such that a respective traffic stream of a communications session mapped through one of the upstream channels is automatically routed to the selected path [column 5, lines 1-8] and the selected (new) path is determined at a time of set-up of the communications session [column 5, lines 2-17].

Regarding claims 7,8,12,23, Aukia et al. disclosed that packet classifier extracts (collect) network management and critical mission (control) message content from each

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traffic stream [column 6, lines 20-67, column 7, lines 1-5] and control messages are routed on a different path (signaling) from that of traffic stream (data) [items 504, 508 of Fig 5, column 10, lines 24-63].

Regarding claim 10, 12-14, 24, Aukia et al. disclosed that for path selection process comprises a respective prioritization classifier adapted to control a priority (TOS field of packet header) of each traffic stream being conveyed through the path [Fig 8, column 17, lines 64-67, column 18, lines 1-44] including SONET links [column 6, lines 7-18].

Regarding claims 11, 25, Aukia et al disclosed that each input queue comprises buffers [items 203 & 205 of Fig 2, Fig 4, column 12, lines 38-67, column 13, lines 1-31], each buffer being adapted to store data of at least one traffic stream being conveyed through the path and a scheduler for controlling transmission of data from each buffer through the path and the selected buffer being selected based on a content of a predetermined field of the respective overhead of each traffic stream and controlling transmission of data from each buffer through the path [column 3, lines 21-28, column 10, lines 3-24].

Regarding claim 15, 26, 27, Aukia et al. disclosed that the predetermined field (packet header) comprises a respective DSCP (differentiated services) field of each Internet Protocol (IP) traffic stream being conveyed through the path [column 1, lines 55-67, column 2, lines 1-19, column 3, lines 21-67, column 4, lines 1-20].

Regarding claims, 16, 17, 28, Aukia et al. disclosed the step of separating, routing and round robin scheduling (fairness based on QoS) responsive (TCP) and non-

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responsive (IP/UDP) traffic streams at a respective egress [item 207 of Fig 2] end of each path [Fig 2, column 3, lines 54-67, column 4, lines 1-19, column 10, lines 48-62].

Response to Arguments

4. Applicant's arguments filed on 03/28/2006 have been fully considered but they are not persuasive. Examiner respectfully traverses the applicants arguments as in Remarks (pp 10 – 11) as follows-

With regard to applicant's argument that the prior art of reference does not teach two diverse paths mapped through the switch fabric (pp10-11), Aukia et al disclosed QoS based multi-path routing with different ones of the sets of traffic allocated to different paths through the switch (**item 206 of Fig 2, column 8, lines 62-67, column 9, lines 60-66, column 10, lines 3-23**) and further disclosed that the switch common input interface (**input link interface that supports one or more links, item 204 of Fig 2**) to a common output interface (**output link interface that supports one or more line cards, item 207 of Fig 2**) for both multiplexed and non-multiplexed flows [Fig 2, col 8, lines 52-67, col 1, lines 29-54, col 9, lines 60-67, col 10, lines 1-23].

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action

Conclusion

6. Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616. The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached @ (571)-272-3139. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

Venkatesh Haliyur

Patent Examiner

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06/01/06


RICKY Q. NGO
SUPERVISORY PATENT EXAMINER